

REMARKS

I. Status of Claims

Claims 1-131 are pending. Claims 43-131 have been withdrawn from consideration as being directed to non-elected subject matter. By this Amendment, Applicants have amended claims 1, 21-23, 32-34, 36, 37, and 42, and Applicants have cancelled claim 20. Support for the amendment to claims 1 and 42 can be found in the originally filed specification, for example on page 17, paragraph [044] and original claim 20. The amendments to claims 21-23, 32-34, 36, and 37 correct improper dependencies created from the cancellation of claim 20. No new matter has been introduced by these amendments.

II. Rejection under 35 U.S.C. § 102

The Examiner has rejected claims 1-4, 10, 18, 19, and 38-41 under 35 U.S.C. § 102(b) as anticipated by U.S. Patent No. 3,971,391 to Bore et al. ("Bore"). According to the Examiner, Bore "teaches an aqueous hair relaxing composition comprising an alkaline metal of sodium hydroxide and a reducing agent of alkaline-metal sulfites" Office Action at 3. The Examiner has concluded that because "Bore teaches all the limitations Bore anticipates the claims." *Id.* Applicants disagree.

In order for a reference to anticipate, the reference must teach every element of the claim. M.P.E.P. § 2131. As evident from the absence of claim 20 in this rejection, the Examiner acknowledges that Bore fails to teach the claimed composition as amended, comprising at least one complexing agent effective for dissociating the at least one hydroxide compound in a sufficient quantity to effect lanthionization of keratinous fibers.

Therefore, Applicants respectfully request reconsideration and withdrawal of the rejection under § 102(b).

III. Rejections under 35 U.S.C. § 103

A. Bore

The Examiner has rejected claims 5, 6, 11, and 42 under 35 U.S.C. § 103(a) over Bore. According to the Examiner, Bore “teaches an aqueous hair relaxing composition comprising an effective amount of alkaline metal of sodium hydroxide . . . and a reducing agent of alkaline-metal sulfites” Office Action at 3. Yet the Examiner admits that “[t]he instant claims differ [from] the reference by reciting optimal amounts of the ingredients in the composition.” *Id.* at 4. The Examiner then concludes that the present invention would have been obvious to one of ordinary skill in the art, as one “would optimize[] the amounts of the ingredients in the composition so as to get the maximum effective amounts” *Id.* Applicants disagree.

In order to establish a *prima facie* case of obviousness, the Examiner must demonstrate, among other things, that the prior art reference or references teach or suggest all of the claim limitations. As discussed above, the Examiner has not established that Bore teaches or suggests a composition comprising at least one complexing agent effective for dissociating at least one hydroxide compound in a sufficient quantity to effect lanthionization of keratinous fibers, as claimed. As no *prima facie* case has been established, Applicants respectfully request withdrawal of the rejection.

B. Bore in view of Mathews

The Examiner has rejected claims 7-9, 20-24, and 34-37 under 35 U.S.C. § 103(a) over Bore in view of U.S. Patent No. 4,816,246 to Mathews et al. ("Mathews"). Claim 20 has been cancelled by this amendment, and thus Applicants traverse the rejection as it applies to the remaining claims, and preemptively traverse the rejection as it applies to amended claim 1, containing all of the elements of cancelled claim 20.

The Examiner first admits that Bore does not teach thiol compounds, but alleges that Bore does teach a composition comprising sulfite compounds as reducing agents. The Examiner then alleges that Mathews "teaches a composition comprising ammonium thioglycolate compounds . . . and a sequestering agent as complexing agent . . . and chelating agents such as ethylene-diaminetetraacetic acid (EDTA)" Office Action at 4. The Examiner concludes that the instant claims would have been obvious over Bore in view of Mathews because "the primary reference of Bore clearly suggests the use of sulfur-containing compound[s] . . . and the secondary reference of Mathews teaches the use of ammonium thioglycolate compounds as reducing agents and sequestering agents . . . thus, a person of ordinary skill in the art would be motivated to incorporate the ammonium thioglycolate and sequestering compounds in the composition" *Id.* at 5.

In order to establish a *prima facie* case of obviousness, however, it is required that the Examiner show some suggestion or motivation, either in the reference itself or in the knowledge generally available to one of ordinary skill in the art, to modify the reference. M.P.E.P. § 2143. It is not enough that references can be combined or modified -- this "does not render the resultant combination obvious unless the prior art

also suggests the desirability of the combination.” *Id.* at 2143.01 (citing *In re Mills*, 916 F.2d 680 (Fed Cir. 1990)). The Examiner’s conclusion that, because both references contain certain ingredients, one of ordinary skill in the art would have been motivated to combine them, simply does not meet with this high threshold.

The Bore reference emphasizes throughout the disclosure that the pH of the composition must be “between about 10.5 and 13.” *See, e.g.*, Bore at Abstract; col. 2, l. 23; and col. 5, l. 41. Mathews, however, is directed towards a permanent wave composition, and emphasizes throughout the disclosure that the pH is considerably lower than Bore’s 10.5 to 13. *See, e.g.*, Mathews at Abstract and col. 2, ll. 35-42 (preferred embodiment has pH ranging from 9 to 9.5); col. 2, ll. 45-48 (pH can also be from 6.8 to 7.2).

As one of ordinary skill in the art would readily realize, lanthionization would not occur at the low pH disclosed in Mathews. Therefore, the Examiner has not explained why one of ordinary skill in the art would be motivated to combine the complexing agents of Mathews, such as the sequestering and chelating agents, with the composition of Bore, especially in light of Mathews’ teaching that the complexing agents “are included in a hair waving composition **formulated according to principles of this invention.**” Mathews, col. 4, ll. 19-21. A composition formulated according to the invention in Mathews would be a permanent wave composition (not a lanthionizing composition) and would have a pH ranging from 9 to 9.5. The composition of Bore lanthionizes hair in the pH range from about 10.5 to 13. Thus, Mathews nowhere suggests adding a complexing agent to the composition of Bore, and the Examiner has not established otherwise.

Moreover, there is no teaching or suggestion in Mathews that the “complexing agent [is] effective for dissociating the at least one hydroxide compound in a sufficient quantity to effect lanthionization of keratinous fibers,” as claimed in amended claim 1. To the contrary, Mathews indicates the complexing agent would be formulated according to the principles of a permanent wave composition and thus would not lanthionize hair.

Absent any suggestion to combine or modify the references, no *prima case* has been established. Applicants therefore respectfully request withdrawal of the rejection on this grounds.

C. Bore in view of Au

Claims 12-17 have been rejected as obvious over Bore in view of U.S. Patent No. 5,872,111 to Au et al. (“Au”). Acknowledging that Bore does not teach at least one cation exchange component, the Examiner relies on Au as teaching “a shampoo composition comprising clay materials such as aluminum silicates as thickeners as claimed in claims 12-14, zeolites and aluminosilicates as claimed in claims 15-17.” Office Action at 5 (citations omitted).

As discussed above, Bore does not teach or suggest all of the elements of the instant claims, including claims 12-17, which are dependent upon amended claim 1. Au does not rectify this deficiency. Indeed, Au is directed to detergent compositions comprising glycosylamide surfactants and is not remotely similar to the claimed invention. Accordingly, the Examiner has not established a *prima facie* case of obviousness.

D. Bore in view of Mathews and further in view of Au, and Bore in view of Mathews, Au, and Pyles

Claims 25-27 and 29-33 have been rejected as obvious over Bore in view of Mathews and further in view of Au. Claim 28 has been rejected over Bore in view of Mathews, Au, and U.S. Patent Application Publication No. 2001/0008630 to Pyles et al. ("Pyles").

As discussed above in Part B, the Examiner has not established the requisite suggestion or motivation to combine Bore and Mathews in order to make out a *prima facie* case of obviousness. Neither Au nor Pyles, which is merely directed to shampoo compositions, rectifies this deficiency, and thus no *prima facie* case has been established. Applicants respectfully request withdrawal of the rejections.

IV. Conclusion

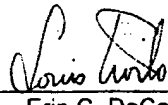
In view of the foregoing amendments and remarks, Applicants respectfully request reconsideration of this application and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

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